Chapter 4

Notes

Hazard Communication Standard (Hazcomm)

Objectives

After completing this section, participants will be able to:

- Identify the components of the Hazard Communication Standard.
- Understand the content of a typical Material Safety Data Sheet.
- Become familiar with labels.

Introduction

The Hazard Communication (Hazcomm) Standard is a different law than the Hazwoper this class is focused on, but it can provide important information in emergencies -- or in your daily work.

In an emergency there are two key tools from Hazcomm: labels and MSDSs. Labels may be your first clue in an emergency. MSDS's are usually the primary source of information about a chemical. You can find information about the hazards, protective equipment, and emergency response. You may not have the MSDS's available at the discovery of an emergency.

Introduction

The Hazard Communication Standard, or Hazcomm, is based on a simple concept - that employees have both a need and **a right** to know the hazards of the chemicals they are exposed to when working. They also need to know what they can do to protect their health. This standard, or law, is designed to provide employees with the information they need.

Overview

Here are the requirements of the Hazard Communication Standard:

- Written Program
- Chemical Inventory
- Employee Training
- Container Labeling
- Material Safety Data Sheets

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Written Program

Employers must develop a written program that outlines their Hazcomm program. It must be specific to each workplace and the hazardous materials workers may encounter.

Chemical Inventory

Employers must develop a chemical inventory of all chemicals used by their workers. The inventory must be kept current. Once hazardous chemicals are identified they require further action, such as labeling, maintaining MSDS's, and employee training about the hazards.

Training

Every worker must be given information and training about the hazardous chemicals in their work area. You must be trained on the hazards of chemicals before you work. Each employee must be familiar with the written program, chemical inventory, and MSDS's. That means you should know where to find this information and how to understand it.

Container Labeling

All chemical containers, including transfer containers, even beakers or buckets, must have a label that conveys the chemical's hazards and target organ information.

The Hazcomm standard requires the following information on labels of containers that are received from a supplier, or go out of a facility as finished product:

- Name of the Product
- Name and Address of manufacturer and/or supplier
- Hazard Warnings, including physical and health hazards, and target organs if appropriate. (More information on target organs in Chapter 5, Health Effects)

Uniform Labeling Systems

The manufacturers ship most products with some kind of hazard information as part of their standard labels. AFSCME recommends that your employer to also use a uniform labeling system such as National Fire Protection Association (NFPA) or Hazardous Materials Identification System (HMIS). The key word is uniform. All chemicals would have the same kind of hazard label that should be easy to find and understand. These labeling systems will be covered in Chapter 7.

Exceptions

Signs, placards, process sheets, or batch tickets may be used for process containers, such as mixing tanks, instead of attaching a permanent label.

The only exception to the labeling requirement is if a single person uses the container, for a short time and the container is **within control of the user at all times.**

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Material Safety Data Sheets

A material safety data sheet (MSDS) is intended to convey information about the hazards of a chemical and what to do in an emergency. There is plenty of other information too. In fact, it's sometimes hard to find what you want on an MSDS because there is so much information! Your employer must maintain a MSDS for each of the hazardous chemicals in your workplace.

The Sections of an MSDS

The format of an MSDS varies considerably from supplier to supplier. However, they are organized into sections that contain the following information:

Section 1 - General Product Information

- Chemical Name
- Address and phone number of manufacturer

The name of the material in this section can be a common, or brand name, such as "Miracle Mix." It must be the same name you would find on the supplier's label so that you can find the matching MSDS.

Section 2 - Hazardous Ingredients

- A breakdown of the ingredients

This is where your investigation of the hazards begins. Once you have found the MSDS for "Miracle Mix," (the made-up example from above) a look at this section should tell you the ingredients that are toxic or dangerous.

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Section 3 - Physical and Chemical Properties

- Appearance, color, vapor density, etc.

This section could help you detect the material if it is released. It also contains information that would tell you if its vapors would collect in high or low spots (vapor density).

Section 4 - Fire Hazard Information

- Information regarding flammability, flashpoint, etc.
- Recommended extinguishing methods

Be especially cautious with chemicals with a flashpoint of 100^{o} F, or less. Using fire extinguishers requires training that isn't provided in this class.

Section 5 - Health Effects

- Routes of exposure
- Symptoms of exposure
- Exposure limits
- First Aid procedures

This section tells you how the chemical may harm you and gives related information, such as the OSHA limits of how much of the chemical can be in the air (vapors) while you work. Some MSDS appear to be incomplete or hard to understand. For example, if you look up the hazardous ingredients from section two in a chemistry or health reference book, you might find information that isn't on the MSDS.

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Section 6 - Reactivity Information

- Chemical incompatibilities
- Hazardous decomposition by-products

"Incompatibilities" are other materials that shouldn't be mixed or stored near this chemical. Decomposition information alerts you to that burning may produce poison smoke.

Section 7 - Personal Protective Equipment

- Description of recommended respirator, gloves, etc.

This section tells you the personal protective equipment (PPE) you could use to protect yourself from the chemical. Two points to remember about PPE.

1) The materials for gloves or aprons may protect you from some chemicals, but other substances could seep through or dissolve the protective gear.

2) Remember that for everyday use of the chemical, PPE is the last resort of protection. (This will be covered in the Health Effects chapter.)

Section 8 - Spill and Leak Procedures

- Recommended procedures for spill containment and clean up

Workers trained at the first responder, awareness level cannot take these actions during an emergency.

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Section 9 - Storage and Handling

- Special precautions for storage and handling

Proper storage may prevent an emergency from developing.

Hazard Communication

Key Points **4**

1) The Hazard Communication law is another standard that affects emergency responders.

2) The Hazcom law requires employers to have:

   - A written plan
   - Chemical inventory
   - Labeling practices
   - Material safety data sheets
   - Training on chemicals used in the workplace.

3) Labels are required on all products, including secondary containers.

4) Material Safety Data Sheets (MSDS) are chemical factsheets that are received with each shipment and must be maintained in your workplace.

5) Each MSDS may look different, but all are required to have the same basic information.